600TVL White Light Car License Plate Capture Camera

User Manual



Warning：Please read this manual carefully before installation and use!

CONTENT

1、SAFETY TIPS ：

- Installation must be operated by qualified professionals！
- Laypeople are forbidden to open this camera!

2、POINTS FOR ATTENTION ：

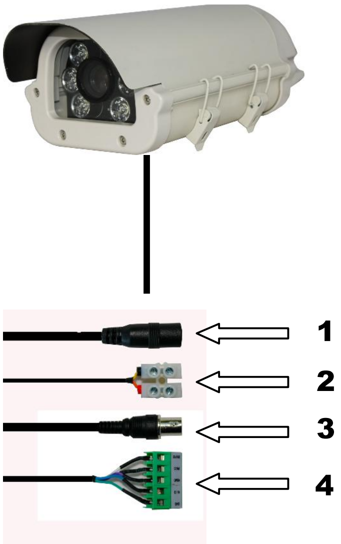
1. Keep the camera away from damp or rainy places, and install strictly as per the manual.
2. To avoid damage, please do not operate with power on.
3. Please do not disassemble or make modification on the camera without permission.
4. For connection guidance, please refer to the connection diagram in this manual.
5. This camera is required to be used under stated voltage/humidity/temperature range.
6. Please do not make the camera directly shoot at highlight or sunshine.
7. Right of final explanation for this manual is reserved by the manufacturer.

3、CHARACTERISTICS ：

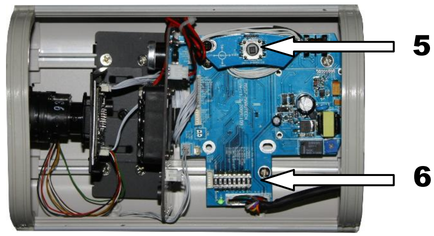
This model is a high definition, full function Outdoor Water Proof White Light Car License Plate Capture camera, it is designed as per the newest 600TVL solution, with built-in DNR function, it can effectively reduce the noise on image displayed under super low illumination at night, and the OSD Menu inside can be remotely controlled through RS485, which makes the camera more convenient to use, characteristics as below:1/3” SONY SUPER HAD CCD.

- Color 600TVL Hi Resolution
- 5~60mm Auto Iris Lens
- Available distance:1~40M
- Separate glass: no Light diffusion and fog
- Full Function OSD Menu
- RS-485 Light Brightness Controllable
- Light Value Can be Saved Permanently
- Shutter Speed 1/50~1/120,000 Adjustable
- Built-in FAN&HEATER, Operation Temperature-40℃～+60℃
- DC12V Power Input
- It Can Keep Stable Work Under Any Climate
- Recognize No. Plate With Clarity at Any Vehicle Speed
- IP65 Water-Proof

4、FUNCTION ：

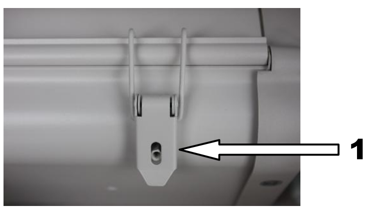


1. DC12V：Power Supply Input Interface；
2. RS485： RS485 Input Interface；
3. Video Output Port；
4. I/O Control Interface：



5. OSD Control:
6. Camera Address can be set between 0-127；

FIGURE1：Camera Rear Panel



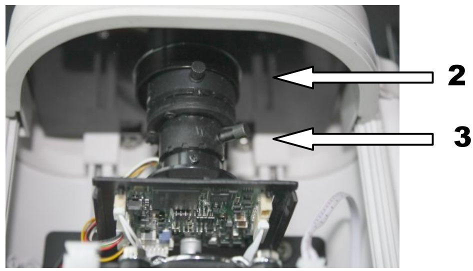


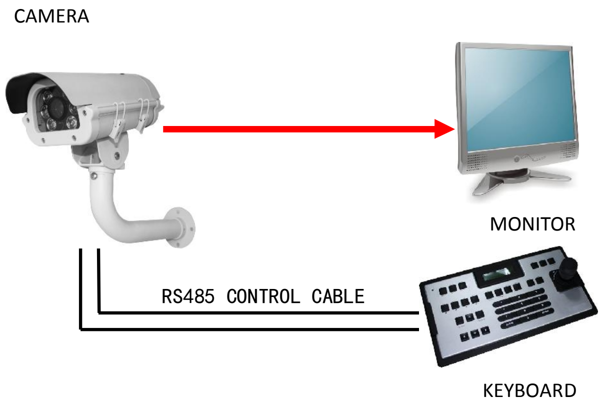
FIGURE 2：OVERVIEW，

1.Unfasten the latch, then cover the peotective cover and fasten the latch after the camera installation and lens' focusing finished(It's recommended to fasten the latch by screw in order to avoid unprоressional disassembly on housing)

2. Lens Focus deflector rod， fasten the deflector rod after accurate focus.

3. Lens Zoom deflector rod,， fasten the deflector rod after accurate focus.

5、USAGE ：



CAMERA	KEYBOARD
RS485A	RS485+
RS485B	RS485-

CONNECTION ORDER OF KEYBOARD AND CAMERA

PROTOCOL	The camera can automatically identify the PELCO-D/PELCO-P Protocol and 2400/4800/9600 baud rate，let the keyboard give an order at its first communication between the camera and keyboard, in order to identify current protocol of keyboard.
ADDRESS	Rear DIP Switch setting，address range from 0 to 127 for setting，power off first and reconnect after address setting's done.
CALL OR EXIT OSD MENU	Call+64+Enter Call+95+Enter Call+99+Enter Call+100+Enter
OSD MENU UP	Joystick upward
OSD MENU DOWN	Joystick downward
OSD MENU LEFT	Joystick leftward
OSD MEBU RIGHT	Joystick rightward
Light Brightness Control 	Call+200+Enter > Joystick leftward(Dark)/Joystick rightward(Bright)> Call+201+Enter (Saved Permanently)

Communication Setting of Keyboard and Camera

6、MENU OPERATION ：

LENS ↵

ESC	BRIGHTNESS	0~20
	FLK	OFF/ON
DC	DC LEVEL	0~20
	FLK	OFF/ON
	SHUTTER	1/60,1/250,1/700,1/1K,1/1600,1/2500, 1/5K,1/7K,1/10K,1/30K,1/60K,1/120K
WHITE BAL		
ATW		
MANUAL	RED	0~160
	BLUE	0~160
PUSH		

AGC ↵

ON	LEVEL	0~20
OFF		

DAY/NIGHT ↵

COLOR		
B/W	BURST	OFF/ON
EXT		
AUTO	DWELL TIME	1~15

IMAGE ADJ ↵

SBLC	OFF/LOW/MIDDLE/HIGH	
DNR	OFF/LOW/MIDDLE/HIGH	
SHARPNESS	LEVEL	0~20
H.MIRROR	OFF/ON	
MOTION	AREA	1~4
	DISPLAY	ON/OFF
	SENSITIVITY	1~24
	TOP	8~126
	BOTOM	8~126

	LEFT	4~191
	RIGHT	4~191
	INITIAL	
	RETURN	
MASK	AREA	1~4
	DISPLAY	ON/OFF
	SENSITIVITY	1~24
	TOP	8~126
	BOTOM	8~126
	LEFT	4~191
	RIGHT	4~191
	INITIAL	
	RETURN	
COLOR GAIN	R-Y	0~20
	B-Y	0~20
INITIAL		
RETURN		

GENERAL ↵

CAM ID	0~255	
ID DISPLAY	OFF/ON	
CAM TITLE	OFF	
	ON	UP/DN,LE/RI
LANGUAGE	ENG,CHN	
SYNC	INT	
PROTOCOL	P/D,DEF	
BAUDRATE	2400/4800/9600/57600	
INITIAL		
RETURN		

INITIAL ↵

EXIT

7、PARAMETERS ：

Model	NTSC	PAL
Sensor	1/3 “ SONY Super HAD CCD	
Pixel	768（H）x 494（V）	752（H）x 582（V）
Scanning	2:1Intelace	
Sync. Mode	Internal，Line Lock	
Horizontal Frequency	15.734kHz	15.625 kHz
Vertical Frequency	59.94Hz	50.00 Hz
Resolution	Color：600TV Lines/650TV Lines（B/W，Signal Enhancement）	
Video Output	1.0Vp-p/75Ω Video，0.714Vp-p Composite， 0.286Vp-p	
Burst Level	0.286Vp-p	
S/N Ratio	54dBMin.(AGC Correct OFF)	
Illumination	0.1 Lux at F1.2 (Color Mode) 0.001 Lux at F1.2 (B/W Mode) 0 Lux (IR LED ON)	
AGC	ON/OFF Optional	
Iris Control	DC AUTO IRIS（Shutter Speed 1/50~1/120000）/ELC	
E-Shutter	1/60～1/60,000 S	1/50～1/60,000 S
White Balance	ATW/AWC/MANUAL Mode	
Backlight Compensation	OFF/LOW/MID/HIGH Output	
Motion Detect Alarm	ON/OFF（4 Areas for setting）	
Privacy Zone Masking	ON/OFF（4 Areas for setting）	
D/N Mode	AUTO/COLOR/B&W/External Signal Control	
Communication	RS485， PELCO-D / PELCO-P Protocol	
Control Manner	Built- in OSD Menu	
Lens	KAWADEN Lens f=5-60mm CS Mount F=1:1.4 ICR DC Auto IRIS	
Power Supply	12VDC	
Power Consumption	5W（DC）	
Size	143(W) X 166(H) X 290(L) mm	
Storage Temperature	-40℃~60℃	
Operation Temperature	-40℃~60℃	
Humidity Range	20%~90% RH	
Weight	1000g	

8、ID DIP CODE SETTING ：

Add	1	2	3	4	5	6	7	8	Add	1	2	3	4	5	6	7	8
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	43	ON	ON	OFF	ON	OFF	ON	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	45	ON	OFF	ON	ON	OFF	ON	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	46	OFF	ON	ON	ON	OFF	ON	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	47	ON	ON	ON	ON	OFF	ON	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	51	ON	ON	OFF	OFF	ON	ON	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	53	ON	OFF	ON	OFF	ON	ON	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	54	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	55	ON	ON	ON	OFF	ON	ON	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	57	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF	58	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	59	ON	ON	OFF	ON	ON	ON	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	60	OFF	OFF	ON	ON	ON	ON	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	61	ON	OFF	ON	ON	ON	ON	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	62	OFF	ON	ON	ON	ON	ON	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	63	ON	ON	ON	ON	ON	ON	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	64	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	65	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF	66	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	67	ON	ON	OFF	OFF	OFF	OFF	ON	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	68	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	69	ON	OFF	ON	OFF	OFF	OFF	ON	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF	70	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
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35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	78	OFF	ON	ON	ON	OFF	OFF	ON	OFF
36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	79	ON	ON	ON	ON	OFF	OFF	ON	OFF
37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	80	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	81	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
39	ON	ON	ON	OFF	OFF	ON	OFF	OFF	82	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	83	ON	ON	OFF	OFF	ON	OFF	ON	OFF
41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	84	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	85	ON	OFF	ON	OFF	ON	OFF	ON	OFF

Add	1	2	3	4	5	6	7	8	Add	1	2	3	4	5	6	7	8
86	OFF	ON	ON	OFF	ON	OFF	ON	OFF	107	ON	ON	OFF	ON	OFF	ON	ON	OFF
87	ON	ON	ON	OFF	ON	OFF	ON	OFF	108	OFF	OFF	ON	ON	OFF	ON	ON	OFF
88	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	109	ON	OFF	ON	ON	OFF	ON	ON	OFF
89	ON	OFF	OFF	ON	ON	OFF	ON	OFF	110	OFF	ON	ON	ON	OFF	ON	ON	OFF
90	OFF	ON	OFF	ON	ON	OFF	ON	OFF	111	ON	ON	ON	ON	OFF	ON	ON	OFF
91	ON	ON	OFF	ON	ON	OFF	ON	OFF	112	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
92	OFF	OFF	ON	ON	ON	OFF	ON	OFF	113	ON	OFF	OFF	OFF	ON	ON	ON	OFF
93	ON	OFF	ON	ON	ON	OFF	ON	OFF	114	OFF	ON	OFF	OFF	ON	ON	ON	OFF
94	OFF	ON	ON	ON	ON	OFF	ON	OFF	115	ON	ON	OFF	OFF	ON	ON	ON	OFF
95	ON	ON	ON	ON	ON	OFF	ON	OFF	116	OFF	OFF	ON	OFF	ON	ON	ON	OFF
96	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	117	ON	OFF	ON	OFF	ON	ON	ON	OFF
97	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	118	OFF	ON	ON	OFF	ON	ON	ON	OFF
98	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	119	ON	ON	ON	OFF	ON	ON	ON	OFF
99	ON	ON	OFF	OFF	OFF	ON	ON	OFF	120	OFF	OFF	OFF	ON	ON	ON	ON	OFF
100	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	121	ON	OFF	OFF	ON	ON	ON	ON	OFF
101	ON	OFF	ON	OFF	OFF	ON	ON	OFF	122	OFF	ON	OFF	ON	ON	ON	ON	OFF
102	OFF	ON	ON	OFF	OFF	ON	ON	OFF	123	ON	ON	OFF	ON	ON	ON	ON	OFF
103	ON	ON	ON	OFF	OFF	ON	ON	OFF	124	OFF	OFF	ON	ON	ON	ON	ON	OFF
104	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	125	ON	OFF	ON	ON	ON	ON	ON	OFF
105	ON	OFF	OFF	ON	OFF	ON	ON	OFF	126	OFF	ON	ON	ON	ON	ON	ON	OFF
106	OFF	ON	OFF	ON	OFF	ON	ON	OFF	127	ON	ON	ON	ON	ON	ON	ON	OFF